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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,234	01/17/2002	Ulrich Mueller	50512	8185

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KEIL & WEINKAUF
1350 CONNECTICUT AVENUE, N.W.
WASHINGTON, DC 20036

EXAMINER

VOLLANO, JEAN F

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 06/17/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/031,234		MUELLER ET AL.	
	Examiner		Art Unit	
	Jean F. Vollano		1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

1. The amendment filed 5/20/2003 has been entered. Claims 7-24 and newly added claims 25-28 are pending.
2. The typographical error has been corrected on page 6 of the specification and the objection to the specification is withdrawn.
3. In reference to the 35 U.S.C. second paragraph rejection applicant is arguing scope of the claim and recites MPEP 2173.02. Applicant states under MPEP 2173.02 one of ordinary skill in the art would be apprised of the metes and bounds of the instant claims.

MPEP 2173.02 states "The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

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The examiner has reviewed the contents of the particular disclosure and it does not delineate any feeling for what exactly is being claimed by the three letter alphabet which goes on for columns and columns. The specification does not explain what the alphabet of letters means as far as the Zeolites being claimed. Applicant has given sources that the examiner can search. That criteria does not help in understanding the metes and bounds of the claim.

The knowledge of ordinary skill in the art at the time of the invention is another criteria. The chemical abstracts registry file and caplus are full of what one of ordinary skill in the art knows. However upon searching both the chemical abstracts and caplus files there were conflicting ideas at best and empty sets when things like zeolites and SAT were searched. Therefore one of ordinary skill in the art would not directly know the metes and bounds.

The last criteria is what is known in the art.

Applicant has supplied a few pages of Ullmann's Encyclopedia to prove a point but since there none of the 3 letter limitations are in the pages provided, doesn't support the allegations by applicant. The website <http://www.iza-structure.org/databases> was searched and all of the three code framework structures are now found except MCM-22 and ITO-4. It would have been helpful if there was an explanation of the terms as being codes for structural types of zeolites that do not give any composition but just the framework as found by X-ray crystallography. However with the information on the world wide web the rejection is withdrawn except for MCM-22 and ITO-4 since they cannot be found in the art cited, are not describe in the specification and not known to one of ordinary skill in the art.

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Therefore the rejection under 35 U.S.C. 112, paragraph 2 is maintained for 11, 12, 13, 14, and the rejection is also applicable to newly added claim 26 since it also has MCM-22 and ITO-4. Thus claims 11-14 and 26 are now rejected under 35 U.S.C. 112, paragraph 2.

Claim Rejections - 35 U.S.C. § 112

4. Claims 7-24 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 7 recites the limitation of "excluding carbon catalysts". This limitation was not present in the original claims as filed. The examiner cannot find support for this limitation in the specification and applicant has not shown support in the specification for this limitation. Applicant is asked to either withdraw the claim language that is new matter or show support for the language.

Claim 11-14 and 26 recite the limitation of "having framework type codes ". The examiner cannot find support for this limitation in the specification and applicant has not shown support in the specification for this limitation. Applicant is asked to either withdraw the claim language that is new matter or show support for the language.

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5. Claim 7-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation of "excluding carbon catalysts." This is unclear as to the metes and bounds of what is being claimed in the instant invention. Carbon catalysts can be inorganic carbon catalyst, it can be organic carbon catalysts or it can be organometallic carbon catalysts to give a few examples of what can fall under the term carbon catalysts. The wording is such and the specification does not give any definitions to what is included in this terminology and therefore it is unclear what applicant considers as the metes and bounds of the instant invention.

6. In reference to the 102(b) rejection over Felthouse (US 4,582,650) applicant argues a different mechanism of action because of carbon being present. The only requirement for a 102(b) is that all the elements that are being claimed are present in the process. Since the process is comprising this is open to any additional ingredients or steps. However since applicant has now removed carbon as a component in the reaction system the rejection is withdrawn. However if the limitation is found to be new matter and withdrawn then this rejection will be reinstated.

The same arguments apply to the rejection of claims 7-11 and 20-24 under 35 USC103(a) and the rejection is withdrawn for the present.

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In reference to the comments that the chemistry is not the same the examiner points out that the starting materials and the products are the same and the reagents required are the same and the claim is open ended allowing for additional components and steps. The requirements are met for the limitations being claimed if the new additional phrase had not been added.

Claim Rejections - 35 U.S.C. § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Felthouse (US 4,582,650).

Felthouse discloses a process for preparing N-phosphonomethylglycine of by bringing N-phosphonomethyliminodiacetic acid into contact with an oxidant (see abstract and examples).

Felthouse discloses that the oxidant is a molecular oxygen containing gas which is defined as any gaseous mixture containing molecular oxygen with one or more diluents which are no reactive. Examples are air , oxygen, oxygen diluted with and inert gas etc (column 5, lines 10-21).

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Felthouse et al discloses that the heterogeneous catalyst comprises aluminosilicates, zeolites which include mordenite (which is a naturally occurring sodium aluminum silicate) zeolite Y which is called high silica) etc.

When Felthouse et al discloses that the catalyst contains a noble metal complex with such metals as Pt, Rh, Ir, Pd, Ru from group VIII (a) then the claims are fully anticipated.

Claim Rejections - 35 U.S.C. § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felthouse (US 4,582,650) in view of applicant's admission.

The rejection over Felthouse is substantially the same as supra.

Felthouse does not teach the regeneration of the catalyst and reuse thereof in the process.

Applicant admits that "For the regeneration of the catalyst used according to the present invention, it is in principle possible to use all processes known from the prior art for regenerating silicate containing catalysts, in particular zeolite catalysts" (specification page 10 lines 4-6).

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The instant specification then cites some specific examples of prior art methodology from pages 10-11.

It is also well known by one of ordinary skill in the art that if the catalyst can be regenerated then it can be used over again in the same process. There is a great motivation for reusing a regenerated catalyst in that the expensive of buying a new catalyst for the reaction and the expense of disposing of the catalyst (especially a precious metal catalyst) is eliminated. The motivation is also that the regeneration according to the specification's prior art references is easily accomplished by heating the catalyst at high temperatures in the presence of gas stream containing oxygen.

It would have been obvious to one of ordinary skill in the art to have used the process of Felthouse to prepare N-phosphonomethylglycine by oxidation of N-phosphonomethyliminodiacetic acid in the presence of a heterogeneous catalyst which after partial deactivation can be regenerated by known prior art methods as taught in the instant specification and then reused to lower the cost of the process and avoid having to dispose of precious metal waste.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

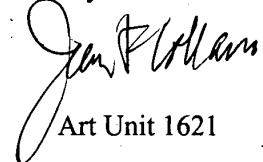
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr J F Vollano whose telephone number is (703) 305-4483. The examiner can normally be reached on Monday to Thursday from 6:30 to 5:00 .

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter , can be reached on (703)308-4532 . The official fax phone number for the organization where this application or proceeding is assigned is (703)308-4556. It should be noted that the examiner cannot immediately work on a fax sent to this number.

14. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1235.

Jean F. Vollano

Primary Examiner



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June 14, 2003